

Product Evidence Base

Lexia[®] LETRS[®]

Efficacy Research

November 2024



Introduction

Lexia Learning is the Structured Literacy expert. For more than 40 years the company has focused solely on literacy. Today, Lexia provides a full spectrum of solutions for both students and teachers. Included in the Lexia portfolio is the Language Essentials for Teachers of Reading and Spelling (LETRS) Suite, which includes LETRS 3rd Edition (LETRS 3E), LETRS for Administrators, and LETRS for Early Childhood Educators. LETRS teaches the skills needed to master the fundamentals of reading instruction – phonological awareness, phonics, fluency, vocabulary, comprehension, writing, and language. It is designed for educators with an interest in improving literacy. Educators who complete LETRS gain the deep knowledge needed to be literacy and language experts in the science of reading.

As the number of professional learning products focused on the science of reading continues to grow, it is important to understand the impact of the products on improving teacher knowledge, instructional practices, and – indirectly – student reading outcomes. Evidence obtained from both experimental and observational quantitative research can be used to differentiate LETRS from other interventions. This report provides a summary of all empirical research published on the LETRS suite to date, and it constitutes the evidence base for LETRS.

Key Findings

Across multiple studies, we have found:

- **Educators perceive LETRS training to be valuable.**

Studies that address educator perceptions found that educators view LETRS training as playing a valuable role in improving student reading.

- **Improved instructional knowledge.**

Teachers who completed LETRS training demonstrated higher levels of instructional knowledge based on a variety of objective and self-rated measures.

- **Improved quality of instruction.**

Teachers who completed LETRS training demonstrated improved instructional practice as documented in observational studies.

- **LETRS training linked to improved student outcomes.**

Numerous studies have reported improved reading achievement scores for students whose teachers were trained with LETRS.

- **LETRS training tied to better implementation of an evidence-based reading intervention.**

Students who used Lexia Core5 Reading and had teachers trained with LETRS met Core5 usage targets more frequently and had higher reading scores than Core5 students whose teachers did not use LETRS.

LETRS has evolved through multiple editions over the years. Originally developed by renowned literacy expert Dr. Louisa Moats, LETRS was designed to help teachers learn and apply scientific, research-supported methods to improve reading outcomes and prevent reading difficulties. LETRS 3rd Edition introduced new features to enhance the program’s efficacy and user engagement, including an online delivery model, engaging videos, embedded assessments, reporting capabilities on user progress, and the option for users to receive credit from two universities for completion of college coursework. The content of LETRS is divided into two four-unit volumes, as opposed to the modules of previous editions.

The [LETRS 3E Logic Model](#) illustrates how LETRS 3rd Edition is expected to impact schools, educators, and students. It operationally defines the key inputs and activities involved in a LETRS implementation, and the outcomes expected to result. The LETRS 3E Logic Model helps satisfy the “Demonstrates a Rationale” level of evidence for the effectiveness of an educational program as described by the *Every Student Succeeds Act* (ESSA).

A **logic model** is a visual representation of the assumptions and theory of action that underlie the structure of an education program ([IES](#)).

LETRS is a professional learning course for educators who aim to improve literacy outcomes for students.

The primary purpose of LETRS is to improve teacher knowledge and instructional practice. It is not an instructional intervention for students. When conducting research studies or evaluations, many researchers and state education agencies have paired LETRS with other interventions, such as literacy coaches and instructional programs, to promote improved student reading outcomes. In these studies, the observed effects cannot be attributed to either LETRS or to the other professional learning component(s) in isolation. Despite this limitation, we describe the findings from studies that combine LETRS together with other professional learning interventions as demonstrating a rationale for the use of LETRS.

The studies summarized in the following tables provide an evidence base establishing the efficacy of LETRS. Included are early studies on LETRS 1st and 2nd Editions¹ – together with more recent empirical studies on LETRS 3rd Edition. Studies on earlier editions demonstrate a rationale that LETRS 3rd Edition would be effective for educators and their students. Although research on LETRS 3rd Edition is limited, the weight of empirical evidence suggests it can improve teacher knowledge and instruction when used as intended. Evidence for the efficacy of LETRS is described relative to the categories created by the *Every Student Succeeds Act* (ESSA).

Peer-Reviewed Publications

Lexia values peer-reviewed research. The peer-review process subjects research studies and findings to the scrutiny of other experts in the same field (peers). This process is considered necessary to ensure academic scientific quality. As of October 2024, there are 3 peer-reviewed scientific studies of LETRS as listed below.

Table 1.

Peer-Reviewed Publications on LETRS.

| # | Year | ESSA Tier | Outcomes | Grades | # Students | Targeted Demographics |
|-------------------|------|-----------|--|--------|------------|-------------------------------|
| 1 | 2024 | Rationale | Oral Reading Fluency | 1-5 | 434 | - |
| 2 | 2011 | Rationale | Attitudes, Instruction, Nonsense Word Fluency | 1 | 981 | High-Needs |
| 3 | 2008 | Rationale | Oral Reading Fluency, Word Analysis, Comprehension | 2 | 1,512 | Students with Disabilities |

¹ LETRS 1st Edition consisted of 10 modules delivered through print material and in-person professional development sessions. LETRS 2nd Edition consisted of 12 modules delivered through print material, in-person professional development sessions, and an online platform. LETRS 3rd Edition consists of two four-unit volumes delivered through an online platform, print material, and optionally, professional learning unit sessions.

External Evaluations

LETRS has been evaluated by external parties unaffiliated with Lexia Learning. Research on an earlier edition of LETRS has been reviewed by the independent organization What Works Clearinghouse. Independent researchers have also evaluated the effectiveness of LETRS. Many of these evaluations have been conducted as part of large-scale program evaluations often commissioned by states or other organizations. Other external evaluations of LETRS have been conducted by graduate students as part of their doctoral dissertations. These research studies – summarized in Tables 2 and 3 below – provide independent, third-party confirmation that LETRS is an effective program.

Table 2.

Third-Party Program Evaluations on LETRS.

| # | Year | ESSA Tier | Outcomes | Grades | # Educators | Targeted Demographics |
|-------------------|------|-----------|--|--------|-------------|----------------------------|
| 4 | 2023 | Moderate | Educator Experiences and Perceptions, Reading Achievement | PK-3 | 1,094 | - |
| 5 | 2023 | Rationale | Self-Rated Benefits | PK-3 | 1,000 | - |
| 6 | 2020 | Rationale | Reading Achievement, Risk for Disability | PK-3 | 584 | - |
| 7 | 2018 | Moderate | Letter Naming, Nonsense Word, Segmentation, Oral Reading Fluency | K-1 | 160 | Students with Disabilities |
| 8 | 2018 | Rationale | Teacher Knowledge and Practice | K-3 | 7,638 | High-Needs |
| 9 | 2008 | Rationale | Reading Content Knowledge, Instructional Practice | 2 | 270 | Urban |

Housed within the U.S. Department of Education's Institute of Educational Sciences, the What Works Clearinghouse (WWC) is a central and trusted source of scientific evidence on education programs, products, practices, and policies. The WWC reviews research, determines which studies meet rigorous standards, and summarize the findings with the goal of answering the question "what works in education?" For more information about this organization, please visit their website at www.ies.ed.gov/ncee/wwc

As of November 2024, a study featuring LETRS has received a

MODERATE Rating

from the What Works
Clearinghouse.



MEETS WWC
STANDARDS WITH
RESERVATIONS



AT LEAST ONE
STATISTICALLY
SIGNIFICANT POSITIVE
FINDING

TIER
2
MODERATE

AT LEAST ONE
FINDING SHOWS
MODERATE EVIDENCE
OF EFFECTIVENESS

<https://ies.ed.gov/ncee/wwc/Study/86099>

State and Federal Evaluations



[Link to Evaluation](#)



[Link to Evaluation](#)



[Link to Evaluation](#)



[Link to Evaluation](#)



[Link to Evaluation](#)

Table 3.

Doctoral Dissertations on LETRS.

| # | Year | ESSA Tier | Outcomes | Grades | # Educators | Targeted Demographics |
|--------------------|------|-----------|--|--------|-------------|-----------------------|
| 10 | 2023 | Rationale | Student Reading Fluency, Teacher Proficiency | K-3 | 17 | - |
| 11 | 2023 | Rationale | Teacher Knowledge, Student Reading | K-2 | 14 | - |
| 12 | 2022 | Rationale | Foundational Skills, Vocabulary, Comprehension | 1 | 17 | Rural, Title 1 |
| 13 | 2018 | Rationale | Student Reading Growth | 3 | 10 | High-Needs |
| 14 | 2017 | Rationale | Student Reading Growth | K-3 | 63 | High-Needs |

Internal Research and Reports

Lexia also publishes results from internal research to communicate the impact of LETRS to the public. A research brief is a short, accessible report that provide relevant details about a research study, focusing on key findings. A brief is often released before a full-length manuscript is published with results from the study.

| # | Year | ESSA Tier | Outcomes | Grade s | # Students | Targeted Demographics |
|--------------------|------|-----------|---------------------------------------|---------|------------|-----------------------|
| 15 | 2023 | Moderate | Core5 Usage, Acadience Reading Scores | K-5 | 2,302 | - |

Future Research

The evidence base for LETRS will be expanded greatly as a result of a [5-year grant](#) (Award Number R305A240315) awarded to the University of California, Irvine by the U.S. Department of Education, Institute of Education Sciences. The grant entitled “Investigating the Impact of the LETRS Program on Teacher Knowledge, Instructional Practice, and Student Literacy Outcomes” will include a large-scale, ESSA Strong randomized controlled trial in which participating schools will be randomly assign to LETRS or business-as-usual conditions. The researchers will examine implementation (including fidelity) as well as teacher and student outcomes via teacher surveys, classroom observations, and student pre-post assessments each year.



[Link to Funded Grant Page](#)

The 15 research studies summarized in the above tables constitute the current evidence base for LETRS, providing support for the claim that LETRS is effective at improving educators’ knowledge of the science of reading. The studies also demonstrate that LETRS has the potential to improve student outcomes, especially when paired with student interventions. The remainder of this document provides detailed information about the 15 studies that have been completed on LETRS, including links to the original publications where appropriate. As additional evidence about the effectiveness of LETRS becomes available, this document will be updated.



| | |
|-----------------------|-----------------------------------|
| # Schools | 1 School |
| # Educators | - |
| # Students | 434 Students |
| Assessment | Oral Reading Fluency |
| Duration | 5 Years |
| ESSA Tier | Tier 4 (Demonstrates a Rationale) |
| Evaluators | External Researchers |
| Grades | 1-5 |
| Program | LETRS |
| State | New York |
| Targeted Demographics | - |
| Treatment (Planned) | - |
| Treatment (Uptake) | - |
| Year | 2024 |

This five-year longitudinal study examined the use of professional development in the Science of Reading (SoR) and its impact on student reading outcomes. Participants were 434 students in grades 1 – 5 enrolled in an urban public school district. Professional development was provided by an (unnamed) organization with a mission to shift teaching practices to align with the SoR. Additional training was offered to coaches and reading specialists through LETRS. Treatment fidelity was established by examining coaching logs and interviewing literacy coaches at the end of the study. By the fifth year of the study, about 90% of teachers were reported to be implementing instruction in alignment with the SoR. Oral Reading Fluency (ORF) scores were collected each spring to measure reading outcomes. No data were collected in 2020 due to the pandemic so interpolated data were used for this year. Both the study group and national norms showed upward trends in ORF scores; however, *the study group showed significantly greater growth than the national norms*. The rate of growth over time was 9% for the study group and 6% for the norms. The researchers attribute the greater growth in the study group to the Science of Reading training and its impact on reading outcomes.



| | |
|-----------------------|---|
| # Schools | 25 Schools |
| # Educators | 73 Teachers |
| # Students | 981 Students |
| Assessments | DIBELS, Surveys |
| Duration | 2 Years |
| ESSA Tier | Tier 4 (Demonstrates a Rationale) |
| Evaluators | External Researchers |
| Grades | 1 |
| Outcomes | Instruction, Nonsense Word Fluency, Teacher Attitudes and Perceptions |
| Program | LETRS 1 st Edition |
| State | Michigan |
| Targeted Demographics | High-Needs |
| Treatment (Planned) | 9 Seminars |
| Treatment (Uptake) | 80% Completely Delivered |
| Year | 2011 |

This study compared teacher responses, classroom instruction, elements of school context, and student learning in first-grade classrooms that received a LETRS-based seminar with PD coaching and a LETRS-based seminar without PD coaching. The quasi-experimental results showed no differences in teachers' attitudes toward the LETRS-based seminar, the support of their principal, or opportunities for collaboration with other teachers. However, the LETRS-based seminar plus coaching classrooms delivered more phonics instruction, and students made greater improvements in word decoding from fall to spring. *Survey results suggest that educators generally believed that LETRS deepened their understanding of reading subject matter and led them to change their instruction regardless of whether they were supported by a coach.* On the item, "the professional development deepened my understanding of subject matter," 83% of the PD Coach and 90% of the PD No Coach teachers agreed or strongly agreed. These ratings suggest that teachers learned about reading from the LETRS seminars. Supplementary analyses suggested that principal support contributed to the observed results.



| | |
|-----------------------|---|
| # Schools | 49 Schools |
| # Educators | - |
| # Students | 1,512 Students |
| Assessments | DIBELS, Iowa Test of Basic Reading Skills |
| Duration | 2 Years |
| ESSA Tier | Tier 4 (Demonstrates a Rationale) |
| Evaluators | External Researchers |
| Grades | 2 |
| Outcomes | Oral Reading Fluency, Word Analysis, Listening Comprehension, Reading Comprehension |
| Program | LETRS 1 st Edition |
| State | Michigan |
| Targeted Demographics | Students with Disabilities |
| Treatment (Planned) | - |
| Treatment (Uptake) | - |
| Year | 2008 |

This study examined reading development in second-grade students with specific learning disabilities following the implementation of Michigan's Reading First program. The Michigan Reading First program consisted of (1) LETRS training for general and special education teachers, (2) progress monitoring with DIBELS, (3) flexible instructional grouping for students, and (4) structured and explicit instruction in the five components of early reading. *Students identified with specific learning disabilities grew at the same rate as their peers without disabilities in reading comprehension*, but grew more slowly in oral reading fluency, listening comprehension, and word analysis. The analysis does not compare the Reading First program to a comparison condition, so causal conclusions about the intervention cannot be drawn.



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|-----------------------|--|
| # Districts | 5 Districts |
| # Educators | 1094 Teachers |
| # Students | 22,605 Students |
| Assessments | Acadience Reading (DIBELS), iReady Reading Diagnostic, STAR Assessment |
| Duration | 2 Years |
| ESSA Tier | Tier 2 (Moderate) |
| Evaluators | External Researchers |
| Grades | K-5 |
| Outcomes | Educator Perceptions, Reading Achievement |
| Program | LETRS |
| State | Oregon |
| Targeted Demographics | Underserved Students, English Learners |
| Treatment (Planned) | Volumes 1 and 2 |
| Treatment (Uptake) | 90% completed Volume 1 and were working on (or completed) Volume 2 |
| Year | 2023 |

This study completed by Pacific Research and Evaluation (PRE) offered the state of Oregon information to help decide on investing in LETRS training statewide. Over two years, educators from five school districts engaged in LETRS training. The study included educator surveys and assessments of student outcomes. Educators generally perceived the combination of LETRS training and their district's literacy curriculum to have a positive impact on student learning. However, lack of time for curriculum preparation made transfer of LETRS training to classroom practices difficult. PRE compared reading scores for students with and without LETRS-trained teachers. Though many LETRS teachers were in early stages of training, promising outcomes were found. In one district *Students of LETRS-trained teachers were 1.71 times more likely to have reading scores at/above benchmark than non-LETRS students*. Further, English Learners (ELs) with LETRS-trained teachers were 2.67 times more likely to have reading scores at/above benchmark than non-LETRS ELs. Similar results were obtained for historically underserved students. Promising outcomes were also found in one of the remaining districts.



| | |
|-----------------------|-----------------------------------|
| # Schools | - |
| # Educators | 1,000 Teachers |
| # Students | - |
| Assessments | Researcher Constructed Survey |
| Duration | - |
| ESSA Tier | Tier 4 (Demonstrates a Rationale) |
| Evaluators | External Researchers |
| Grades | PreK-3 |
| Outcomes | Self-Rated Benefits |
| Program | LETRS |
| State | Utah |
| Targeted Demographics | - |
| Treatment (Planned) | - |
| Treatment (Uptake) | - |
| Year | 2023 |

To improve educational outcomes, the Utah State Board of Education (USBE) awards “Grants for Professional Learning” to Local Education Agencies (LEAs) to use for their teachers in preschool through grade 3. In the 2022-23 school year, 106 LEAs received grant money to fund professional learning in early literacy. At the end of the school year, the USBE received survey feedback from educators about whether the professional learning opportunities had an impact. Approximately 1,000 educators who received professional learning through LETRS responded to the survey. *Nearly all of the educators (99%) said that LETRS challenged them to always or sometimes think differently about their instructional practice.* Over 95% of educators responded that: 1) LETRS deepened their understanding of early literacy; 2) they directly used the knowledge, skills and strategies learned in LETRS with their students; and 3) LETRS helped them to continue to grow as professionals. These outcomes support the claim that LETRS can serve as an effective professional learning tool in early literacy.



| | |
|-----------------------|--|
| # Schools | 24 Schools |
| # Educators | 584 Teachers |
| # Students | 8,083 Students |
| Assessments | Ohio's Reading Achievement Test, State Approved Reading Assessments, Reading Tiered Fidelity Inventory |
| Duration | 4 Years |
| ESSA Tier | Tier 4 (Demonstrates a Rationale) |
| Evaluators | External Researchers |
| Grades | Pre-K-3 |
| Outcomes | Reading Achievement, Risk for Disability |
| Program | LETRS 3 rd Edition |
| State | Ohio |
| Targeted Demographics | - |
| Treatment (Planned) | Volumes 1 and 2, staggered by cohort |
| Treatment (Uptake) | 86% of Cohort 1 and 92% of Cohort 2 completed LETRS |
| Year | 2020 |

This report describes the results of an Early Literacy Pilot that involved changes to the state and regional infrastructures; the creation of a real-time data system for use at the local, regional, and state levels; and the provision of LETRS to two cohorts of K-3 teachers from 2016 to 2018. *Improvement in educator knowledge during the pilot was statistically significant in both cohorts of educators.* Implementation of a multitiered system of support also significantly improved in both cohorts. *Students in both cohorts improved on a variety of curriculum-based measures.* The percentage of students with disabilities scoring proficient or higher on Ohio's Third Grade English Language Arts Achievement Test improved for Cohort 1, but not Cohort 2. The percentage of students on track for reading proficiency increased for both cohorts. The results of this study are not uniquely attributable to LETRS because the methods do not account for its use alongside other innovations.



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|-----------------------|---|
| # Schools | 42 Schools |
| # Educators | 160 Teachers |
| # Students | 2,736 Students |
| Assessments | DIBELS |
| Duration | 2 Years |
| ESSA Tier | Tier 2 (Moderate) |
| Evaluators | External Researchers |
| Grades | K-1 |
| Outcomes | Letter Naming Fluency, Nonsense Word Fluency, Phonemic Segmentation Fluency, Oral Reading Fluency |
| Program | LETRS 2 nd Edition |
| State | Pennsylvania |
| Targeted Demographics | Students with Disabilities |
| Treatment (Planned) | 3 Modules |
| Treatment (Uptake) | - |
| Year | 2018 |

This study used a quasi-experimental design to estimate the effectiveness of the classroom program portion of the Pennsylvania Dyslexia Screening and Early Literacy Intervention Pilot Program with two cohorts of students. The classroom program consisted of LETRS training, additional professional development aligned with recommendations from the National Reading Panel, and enhanced core and supplemental reading instruction. *Students in kindergarten Cohort 2 scored significantly higher than comparison students in Letter Naming Fluency and Nonsense Word Fluency.* There were no significant differences between groups for Cohort 1 or on Phonemic Segmentation Fluency or Oral Reading Fluency. This study met What Works Clearinghouse standards with reservations and demonstrates moderate evidence of effectiveness.



| | |
|-----------------------|--|
| # Schools | - |
| # Educators | 7,638 Teachers |
| # Students | - |
| Assessments | Teacher Knowledge of Early Literacy Skills (TKELS), Classroom Observation Tool |
| Duration | 2 Years |
| ESSA Tier | Tier 4 (Demonstrates a Rationale) |
| Evaluators | External Researchers |
| Grades | K-3 |
| Outcomes | Teacher Knowledge & Practice |
| Program | LETRS 2 nd Edition |
| State | Mississippi |
| Targeted Demographics | High-Needs |
| Treatment (Planned) | 8 Modules - Online Platform, Print and Professional Learning |
| Treatment (Uptake) | 29% of Educators Completed 8 Modules |
| Year | 2018 |

This report describes results from an evaluation funded by the Institute of Educational Sciences (IES) of a statewide professional development initiative in Mississippi in which all K-3 educators were provided access to LETRS from January of 2014 to June of 2016. A subsample of 63 high-needs schools were also provided with literacy coaches. The Mississippi Department of Education administered a survey of teacher knowledge to all participants twice each year. *Average teacher knowledge increased from the 48th percentile in the Spring of 2014 to the 59th percentile in the Fall of 2015.* Instructional practices were rated through observations of 316 teachers in the high-needs schools from winter of 2014 to spring of 2015. *Quality of instruction increased from the 31st to the 58th percentile. Student engagement during instruction increased from the 37th to the 53rd percentile. Teaching competencies increased from the 30th to the 44th percentile.*



| | |
|-----------------------|--|
| # Schools | 90 Schools |
| # Educators | 270 Teachers |
| # Students | 5,530 Students |
| Assessments | Reading Content and Practice Survey (RCPS), Classroom Observations, District Literacy Measures |
| Duration | 2 Years |
| ESSA Tier | Tier 4 (Demonstrates a Rationale) |
| Evaluators | External Researchers |
| Grades | 2 |
| Outcomes | Reading Content Knowledge, Instructional Practice |
| Program | LETRS 1 st Edition |
| State | Eastern and Midwestern States |
| Targeted Demographics | Urban |
| Treatment (Planned) | 6 of 12 Modules – 8 In-Person Days |
| Treatment (Uptake) | 93.5% of Planned PD Delivered |
| Year | 2008 |

This study funded by the Institute of Educational Sciences (IES) used a randomized control trial to compare the effects of (1) an 8-day LETRS seminar, (2) the 8-day LETRS seminar paired with instructional coaching from the Consortium on Reading Excellence, and (3) business-as-usual control conditions. The study reported that *both the LETRS seminar and the LETRS seminar plus coaching significantly improved teacher knowledge and teacher use of explicit instruction*. LETRS and LETRS plus coaching respectively had the following effect sizes: 0.37 and 0.38 on teacher knowledge, 0.35 and 0.39 on word-level knowledge, 0.21 and 0.26 on meaning-level knowledge, 0.32 and 0.53 on use of explicit instruction, and 0.08 and 0.03 on student reading scores. The treatment groups also had positive effects on meaningful knowledge and student reading achievement, but the effects were not statistically significant.



| | |
|-----------------------|---|
| # Schools | 1 School |
| # Educators | 17 Teachers |
| # Students | 1,265 Students |
| Assessment | Acadience Reading |
| Duration | 4 years |
| ESSA Tier | Tier 4 (Demonstrates a Rationale) |
| Evaluators | External Researchers |
| Grades | K-3 |
| Outcomes | Acadience Reading Scores, Proficiency Scores on LETRS |
| Program | LETRS |
| State | Utah |
| Targeted Demographics | - |
| Treatment (Planned) | LETRS Volumes 1 and 2 |
| Treatment (Uptake) | LETRS Volume 1 (plus) |
| Year | 2023 |

This study addressed two research questions: (1) How did students' reading scores change during the COVID-19 pandemic? (2) What was the relationship between students' reading scores and teachers' proficiency scores in LETRS? The sample consisted of 1,265 students enrolled in a Utah elementary school during the pandemic and 17 teachers who taught in the same school. Students took the Acadience Reading test at the beginning of year (BOY) and end of year (EOY) in each school year. The teachers completed LETRS training over two years. Their proficiency scores on LETRS Volume 1 posttest were used in analyses. Results showed more severe learning loss in the second year than the first year of the pandemic, and younger students had greater learning loss and recovered more slowly than older students. For question (2), change scores were found for each student by subtracting BOY from EOY composite reading scores during the 2021-22 school year. An average change score was calculated for students with the same teacher. *A positive correlation of $r = .398$ was found between class average change scores and teachers' LETRS proficiency scores*, which suggests LETRS training may have contributed to better reading scores for students during the pandemic.



| | |
|-----------------------|---|
| # Schools | 1 School |
| # Educators | 14 Teachers |
| # Students | - |
| Assessment | Phonological Awareness Literacy Screening |
| Duration | 5 years |
| ESSA Tier | Tier 4 (Demonstrates a Rationale) |
| Evaluators | External Researchers |
| Grades | K-2 |
| Outcomes | Student Reading Growth |
| Program | LETRS |
| State | Virginia |
| Targeted Demographics | - |
| Treatment (Planned) | 4 Units |
| Treatment (Uptake) | 4 Units |
| Year | 2023 |

This study focused on using LETRS training to increase teacher knowledge in the science of reading and consequently improve reading achievement of students. Fourteen teachers received LETRS training. Before beginning LETRS, teachers completed a pre-assessment of their instructional reading knowledge. The pre-assessment mean was 73% correct. Following LETRS, their performance rose to 94% correct. In addition to LETRS training, teachers received instructional feedback on implementing effective intervention strategies. They completed three Plan-Do-Study-Act (PDSA) cycles. For each cycle, data were analyzed to determine the effectiveness of the intervention. Also implemented were 30-day intervention plans. The teachers tiered students and targeted areas of weakness to address each 30-day period. The PALS was used to measure reading achievement. At the beginning of the study, 68% of students met PALS benchmarks. *By the end of the third PDSA cycle, there was an improvement to 82% of students meeting PALS benchmarks.* These findings suggest that providing teachers with LETRS training and instructional feedback leads to better reading outcomes for the students.



| | |
|-----------------------|--|
| # Schools | 8 Schools |
| # Educators | 17 Teachers |
| # Students | 359 Students |
| Assessments | iReady Diagnostic |
| Duration | 1 Year |
| ESSA Tier | Tier 4 (Demonstrates a Rationale) |
| Evaluators | External Researchers |
| Grades | 1 |
| Outcomes | Foundational Skills, Vocabulary, Comprehension |
| Program | LETRS 3 rd Edition |
| State | South Carolina |
| Targeted Demographics | Rural, Title 1 |
| Treatment (Planned) | - |
| Treatment (Uptake) | Teachers completed 75% of LETRS |
| Year | 2022 |

This study examined whether average first grade reading ability differed in two rural school districts: one in which educators completed LETRS and one in which they did not. The study used *t*-tests to compare the fall, winter, and spring iReady benchmark scores of the students enrolled in the two districts. Educators completed 25% of LETRS by the time of the fall benchmark, 50% of LETRS by the winter benchmark, and 75% by the spring benchmark. *Though there was no significant difference in student reading performance on the fall benchmark, students in the LETRS district had higher average scores by the winter benchmark, and this difference was significant by the spring benchmark.*



| | |
|-----------------------|---|
| # Schools | 1 School |
| # Educators | 10 Teachers |
| # Students | 47 Students |
| Assessments | STAR Reading, Mississippi Academic Assessment Program (MAAP), Mississippi Kindergarten-3 Assessment (MKAS) |
| Duration | 2 Years |
| ESSA Tier | Tier 4 (Demonstrates a Rationale) |
| Evaluators | External Researchers |
| Grades | 3 |
| Outcomes | Student Reading Growth |
| Program | LETRS 2 nd Edition |
| State | Mississippi |
| Targeted Demographics | High-Needs |
| Treatment (Planned) | 15 Sessions – Online Platform, Print and Professional Learning |
| Treatment (Uptake) | 9 of 10 Teachers Completed the Training |
| Year | 2018 |

In this mixed methods study, ten third-grade teachers completed 15 sessions of LETRS and implemented the Collaborative Classroom intervention. Growth scores for 47 of their students in the bottom quartile of reading performance were compared to their growth scores for the previous academic year. *Post-intervention growth scores were significantly higher than pre-intervention growth.* There was no improvement in the distribution of student proficiency ratings. *Ninety-eight percent of the students in the post-intervention year passed one of the required state achievement tests.* Because the LETRS training occurred alongside the implementation of Collaborative Classroom, the results cannot be attributed solely to LETRS or Collaborative Classroom.



| | |
|-----------------------|--|
| # Schools | 4 Schools |
| # Educators | 63 Teachers |
| # Students | 1,208 Students |
| Assessments | Early Literacy Student Achievement in Reading (STAR) |
| Duration | 1 Year |
| ESSA Tier | Tier 4 (Demonstrates a Rationale) |
| Evaluators | External Researchers |
| Grades | K-3 |
| Outcomes | Student Reading Growth |
| Program | LETRS 2 nd Edition |
| State | Mississippi |
| Targeted Demographics | High-Needs |
| Treatment (Planned) | - |
| Treatment (Uptake) | - |
| Year | 2017 |

This study compared reading growth trends in four lower performing elementary schools in Mississippi. The Mississippi Department of Education supplied two schools with literacy coaches that had been trained in LETRS and the Transformational Coaching Process. The comparison schools were lower performing schools that did not receive literacy coaches. *Kindergarten students in schools with coaches had significantly higher growth levels than students in comparison schools.* First grade students had significantly lower levels of growth than students in comparison schools. There was no statistically significant difference in growth levels between groups in second and third grade.



| | |
|-----------------------|---------------------------------------|
| # Schools | 8 Schools |
| # Teachers | 114 Teachers |
| # Students | 2,302 Students |
| Assessments | Acadience Reading |
| Duration | 1 Year |
| ESSA Tier | Tier 2 (Moderate) |
| Evaluators | Lexia Research |
| Grades | K-5 |
| Outcomes | Core5 Usage, Acadience Reading Scores |
| Programs | Lexia LETRS, Lexia Core5 Reading |
| State | - |
| Targeted Demographics | - |
| Treatment (Planned) | Volumes 1 and 2 |
| Treatment (Uptake) | 57% |
| Year | 2023 |

A quasi-experimental study examined the added value of LETRS-trained teachers in classrooms using Core5. The sample included 2,302 students in grades K-5. The treatment group consisted of Core5 students whose teachers began or completed LETRS. The control group was made up of Core5 students whose teachers did not begin LETRS. Analyses used propensity score matching to estimate the added value of using Core5 and LETRS together in terms of 1) students' meeting Core5 usage targets, and 2) their Acadience composite reading scores. Propensity score matching ensured that the two groups were similar in initial reading ability and various demographic characteristics. Multilevel regression models were used to account for clustering of students within classrooms. In the first analysis, *students whose teachers used LETRS met Core5 usage targets more frequently than students whose teachers did not use LETRS*. In the second analysis, there were no significant differences between groups in beginning-of-year and middle-of-year reading scores. However, *at the end-of-year students whose teachers used LETRS had higher reading scores than students whose teachers did not use LETRS. The difference was statistically significant with an effect size of 0.26*. Overall, this study shows the added benefits of LETRS training for teachers who use Core5.

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